

REMARKS

In the Office Action, claims 1-20 were rejected and the specification was objected to. By the present Response, the specification and claim 1 have been amended to clarify certain language. Accordingly, claims 1-20 remain pending. Reconsideration and allowance are respectfully requested.

Objections to the Drawings

The Examiner objected to the specification because the term, "inventions," should be singular. Applicants have amended the specification to replace the term, "inventions," with the term, "invention," in the specification on page 4, line 5. The amendments to the specification are believed to overcome the Examiner's objection. Accordingly, Applicants respectfully request withdrawal of the Examiner's objection with regard to the specification.

First Rejection under 35 U.S.C. §103

The Examiner rejected claims 1-3, 5-8, and 9-15 under 35 U.S.C. §103(a) as being unpatentable over Ladouceur (U.S. Pat. No. 5,868,535) in view of Dessirier (U.S. Pat. No. 5,009,557). Although it is unclear as to the exact references asserted against claims 16-19, it appears that the Examiner has rejected these claims under the Ladouceur and Dessirier combination. While Applicant has amended claim 1, Applicant respectfully traverses this rejection and asserts that the claims are not rendered obvious by the cited references. The rejection of independent claims 1, 9, and 16 fails because the proposed combination of references fails to include certain of the recited features of each claim.

Claim 1 and claims depending therefrom

With regard to amended claim 1, the Ladouceur and Dessirier references fail to disclose "a head disposed at one end of the pivot structure," "the first member having a plastically deformed region receiving the head to form a substantially flat surface with the first member" and "a lip disposed at a generally opposite end of the body from the head." In the rejection, the Examiner asserts that the barrel portion 22 of the Ladouceur reference is

equivalent to the body of the present claims and that the free end 32 of the flange portion 24 of the Ladouceur reference is equivalent to the lip of the present claims. However, the Ladouceur reference does not disclose a pivot structure at all, but is directed to a fastening element 20 that is permanently attached to a panel and prevents rotation. Ladouceur, col. 2, lines 55-66; col. 4, lines 1-5. Specifically, in the Ladouceur reference, the flange portion 24 is positioned in the middle of the fastening element 20. Ladouceur, Figs. 1-7. The flange portion 24 is positioned in the middle because one side of the flange portion 24 is the threaded male fastening portion 28 for attaching components to the fastening element 20. Ladouceur, col. 3, lines 60-65; col. 4, lines 61-63. The other side of the flange portion 24 is the barrel portion 22 that may be used to fix the fastening element 20 to a panel. Ladouceur, col. 3, line 60 to col. 4, line 4; col. 4, lines 56-59. As such, the Ladouceur reference does not disclose the recited features because the flange portion 24 is not at one end of the fastening element 20 and does not form a substantially flat surface with the panel 52. Accordingly, the Ladouceur reference does not disclose or suggest the recited features of claim 1 and the claims depending therefrom.

The Dessirier reference does nothing to obviate the deficiencies of the Ladouceur reference. In the rejection, the Examiner asserted that the Dessirier reference discloses a second part 10 that creates a pivot along with a deformed lip 15. However, the Dessirier reference simply discloses a washer 2 with a rivet 1 that has a head 3 attached to a rod 4. Dessirier, col. 2, lines 37-56. The rod 4 does not disclose a lip disposed at the other end of the pivot structure, nor does the head 3 form a substantially flat surface with the first part 7. Dessirier, Figs. 1-2. Further, the Dessirier reference does not disclose a stop, but simply discloses a rod 4 at the other end of the rivet 1. Clearly, the Dessirier reference fails to cure the deficiencies of the Ladouceur reference. Thus, none of the cited references, alone or in combination, discloses the elements of claim 1 set forth above. Dependent claims 2-3 and 5-8 also are patentable for the reasons provided with respect to claim 1 and for the specific subject matter recited in each dependent claim. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 1 and the claims depending therefrom.

Claim 9 and claims depending therefrom

The Ladouceur and Dessirier references fail to disclose “deforming the retention feature with a tool until the tool strikes the stop,” as recited in claim 9. In the Official Action, the Examiner asserted that the rejection of claims 9-15 is applied as asserted above with respect to claims 1-8. As discussed above, the Ladouceur reference is directed to a permanent panel attachment that does not rotate. Ladouceur, col. 2, lines 55-66; col. 4, lines 1-5. Specifically, the Ladouceur reference discloses installing a plunger 60, which engages the flange portion 24 to press the barrel portion 22 into the panel 54. Ladouceur, Figs. 4-7; col. 6, lines 2-20. The internal surface 38 of the barrel portion 22 is not deformed by the plunger 60, but is driven against the panel to deform the barrel portion 22. Ladouceur, col. 6, lines 21-31. In fact, the reference does not even disclose that a stop is used in the deformation process.

The Dessirier reference does nothing to obviate the deficiencies of the Ladouceur reference. Again, the Dessirier reference simply discloses a washer 2 with a rivet 1 that has a head 3 attached to a rod 4. Dessirier, col. 2, lines 37-56. The Dessirier reference describes crushing the end of the rod 4 to retain the washer, but does not disclose deforming until “the tool strikes the stop.” Dessirier, Figs. 1-2. Accordingly, the Dessirier reference fails to cure the deficiencies of the Ladouceur reference. Thus, the cited references, alone or in combination, do not disclose the recited features of claim 9 set forth above. Dependent claims 10-15 also are patentable for the reasons provided with respect to claim 9 and for the specific subject matter related in each dependent claim. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 9 and the claims depending therefrom.

Claim 16 and claims depending therefrom

The Examiner appears to cite only the Ladouceur reference against claims 16-18, but Applicant assumes the Examiner is asserting that the Ladouceur and Dessirier references render these claims obvious. However, the Ladouceur and Dessirier references fail to disclose “a deformable retention member disposed at a generally opposite end of the body from the head” and “a stop positioned a predetermined distance from the head to permit control of the deformation of the deformable retention member.” As noted above, the Ladouceur reference

does not disclose a head at the opposite end of the deformable member. Ladouceur, col. 2, lines 55-66; col. 4, lines 1-5. Again, the flange portion 24 of the Ladouceur reference is positioned in the middle of the fastening element 20, not at an end. Ladouceur, Figs. 1-7. The flange portion 24 is positioned in the middle because one side of the flange portion 24 is the male fastening portion 28 used to attach components. The opposite end of the fastening element is barrel portion 22 used to permanently attach the fastening element to the panel. Ladouceur, col. 3, lines 60-65; col. 4, lines 56-63. Further, the internal surface 38 of the barrel portion 22 does not use a stop to control the deformation of the deformable retention member. As discussed above, the internal surface 38 of the barrel portion 22 is driven against the panel to deform the barrel portion 22, and does not utilize the stop. Ladouceur, col. 6, lines 21-31.

As mentioned above, the Dessirier reference does nothing to obviate the deficiencies of the Ladouceur reference. The Dessirier reference simply discloses a washer 2 with a rivet 1 that has a head 3 attached to a rod 4. Dessirier, col. 2, lines 37-56. The reference does not disclose or suggest a deformable retention member or a stop. Clearly, the Dessirier reference fails to cure the deficiencies of the Ladouceur reference. Thus, none of the cited references, alone or in combination, discloses the elements of claim 16 set forth above. Dependent claims 17-19 also are patentable for the reasons provided with respect to claim 1 and for the specific subject matter related in each dependent claims. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 16 and the claims depending therefrom.

Second Rejection Under 35 U.S.C. § 103(a)

The Examiner rejected claims 4 and 20 under 35 U.S.C. §103(a) as being unpatentable over Ladouceur (U.S. Pat. No. 5,868,535) in view of Dessirier (U.S. Pat. No. 5,009,557) and Whiteside et al. (U.S. Pat. No. 3,551,015). Applicant respectfully asserts that the claims are not rendered obvious by the cited references.

The Examiner, in support of the instant rejection, relied upon the proposed combination of the Dessirier and Ladouceur references along with the Whiteside et al. reference. As stated above, the combined references of Dessirier and Ladouceur fail to

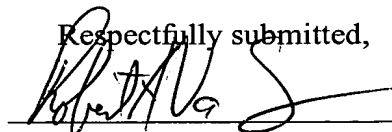
disclose all of the recited features of the respective independent claims 1 and 16 from which the instant claims depend. Furthermore, the Whiteside et al. reference is relied upon as disclosing a relief cut proximate the head to receive material from the first member during formation of the plastically deformed region. The Whiteside et al. reference simply discloses a rivet 10 and collar 20. The reference fails to cure the deficiencies of the Dessirier and Ladouceur references as discussed above. Accordingly, the rejected dependent claims 4 and 20 are believed to be patentable and in condition for allowance. Reconsideration and allowance are requested.

Conclusion

In view of the above remarks and amendments set forth above, Applicant respectfully requests allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Date: April 10, 2003

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

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Please amend the specification as follows:

On page 4, lines 2-5, please delete the existing paragraph and insert:

-- The following passage is intended only to provide a brief summary of limited aspects of the present invention and should not be construed as encompassing all necessary elements or steps of the inventioninventions. --

IN THE CLAIMS

Please amend claim 1 as follows:

1. (Once amended) A system for forming a pivot, comprising:

a first member;

a second member; and

a pivot structure having a head disposed at one end of the pivot structure, a body connected to the head, a stop and a lip disposed at a generally opposite end of the body from the head, the body extending through the first member and the second member, the first member having a plastically deformed region receiving the head to form a substantially flat surface with the first member, the lip being deformed generally towards the stop to prevent separation of the second member from the first member ~~during~~while enabling relative pivotal motion between the first and the second member.